

* 12 combinations $2 \times 2 \times 2$ is 8 times

Step 1

C_1

Itemset
milk
Bread
Butter
beer

L_1

Itemset	sup
milk	9
Bread	10
Butter	7
beer	5

Given support

Step 2

C_2

Itemset
(milk, Bread)
(milk, Butter)
(Bread, butter)

L_2

Itemset	sup
(milk, Bread)	6
(milk, butter)	5
(Bread, butter)	6

Step 3

C_3

Itemset
(milk, bread, butter)

L_3

Itemset	sup
(milk, bread, butter)	4

* Candidate rules come from L_2

- milk \rightarrow Bread
- bread \rightarrow milk
- bread \rightarrow butter
- butter \rightarrow bread

Rule	set	cnt	set	cnt	Confidence
If milk then bread	milk	9	milk and bread	6	$\frac{6}{9} = 66.6\%$
If bread then milk	bread	10	bread and milk	6	$\frac{6}{10} = 60\%$
If bread then butter	bread	10	bread and butter	6	$\frac{6}{10} = 60\%$
If butter then bread	butter	7	butter and bread	6	$\frac{6}{7} = 85.7\%$

• If we want Confidence $\geq 70\%$

• the rule is :-

If butter then bread